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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/868,221	06/15/2001	Richard J Titmuss	36-1439	6037

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EXAMINER

MANIWANG, JOSEPH R

ART UNIT	PAPER NUMBER
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2144

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

09/868,221

Applicant(s)

TITMUSS ET AL.

Examiner

Joseph R Maniwang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Preliminary Amendment filed 06/15/01 has been received and has been entered into record. Claims 3-6 and 8 have been amended.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d) to application UK 9900970.6 filed on 01/15/99.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "20" and "30" have both been used to designate the same network in Fig. 1. Additionally, the drawings are also objected to because reference characters "720" and "730" have both been used to designate the same network in Fig. 7.
4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Fig. 4, reference character 440 (see Specification, p. 6, line 16).
5. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement

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sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

6. The disclosure is objected to because of the following informalities: recitation of Fig. 4, reference character 440 (see Specification, p. 6, line 16), which is not depicted in Drawings. Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claim 10 recites the limitations "the mobile terminals", "the control means", and "each mobile terminal". There is insufficient antecedent basis for these limitations in the claim.

Claim Rejections - 35 USC § 101

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10. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

11. Claims 11-13 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

12. Claim 11 is directed towards a Mobile IP extension, which appears to be nothing more than a software structure not tangibly embodied on a computer-readable medium.

13. Claim 12 is directed towards a Mobile IP registration packet, which appears to be nothing more than a software structure not tangibly embodied on a computer-readable medium.

14. Claim 13 is directed towards a signal, which does not appear to be tangibly embodied in a system.

Claim Rejections - 35 USC § 102

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

16. Claims 1-5 and 8-14 are rejected under 35 U.S.C. 102(a) as being anticipated by Zhao et al. ("Flexible Network Support for Mobility", ACM/IEEE, Proceedings of the Mobile Computing and Networking (MobiCom), p. 145-156, Dallas, TX, Oct 1998), hereinafter referred to as Zhao.

17. Regarding claims 1 and 8, Zhao disclosed a method of transmitting data to a mobile client having multiple network connections as claimed. The invention utilized Mobile IP (see Abstract), where it was disclosed that a correspondent host could transmit data to a mobile terminal. The data was first intercepted by a home agent, which then forwarded it to a mobile terminal (see section 2). Zhao disclosed that a mobile device could request the data, such as in a web transfer (see section 3.1). The mobile terminal also sent location updates to the home agent as claimed (see sections 5.3.1, 5.3.2). Based on such connectivity data, the home agent forwarded the requested data from the correspondent host to the mobile terminal (see section 2).

18. Regarding claim 2, Zhao disclosed the use of a cache for storing traffic data tunneled to the mobile terminal from a home agent (see section 4.3).

19. Regarding claim 3, Zhao disclosed "bi-directional tunneling", where packets sent by the mobile terminal to a correspondent host were sent through its home agent (see section 3.2).

20. Regarding claims 4 and 5, Zhao disclosed the possible use of a foreign agent for tunneling communications between a mobile terminal and a home agent as claimed (see section 2).

21. Regarding claim 9, Zhao disclosed a mobile communications terminal as claimed, comprising an interface to a plurality of networks, means for transmitting and receiving data using the interfaces, and means for sending connectivity information as claimed (see section 5).

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22. Regarding claim 10, Zhao disclosed a communications network where mobile terminals could be in simultaneous communication with more than one of a plurality of subnetworks at a time from the same host (see section 5).
23. Regarding claims 11-13, Zhao disclosed a registration packet as claimed, comprising an extension field, length field, type field, and care-of-address field (see section 5.3.2, Figure 6, Figure 7, Figure 8).
24. Regarding claim 14, Zhao disclosed a mobile communication terminal configured for simultaneous communication via a plurality of types of wireless channels (see section 5), and the ability to select an appropriate communications channel based on traffic characteristics (see section 4.2).

Claim Rejections - 35 USC § 103

25. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

26. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhao et al. ("Flexible Network Support for Mobility", ACM/IEEE, Proceedings of the Mobile Computing and Networking (MobiCom), p. 145-156, Dallas, TX, Oct 1998), hereinafter referred to as Zhao, and further in view of Kikinis (U.S. Pat. No. 6,553,410).
27. Zhao disclosed a method of transmitting data to a mobile client having multiple network connections. The invention utilized Mobile IP (see Abstract), where it was

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disclosed that a correspondent host could transmit data to a mobile terminal. The data was first intercepted by a home agent, which then forwarded it to a mobile terminal (see section 2). Zhao disclosed that a mobile device could request the data, such as in a web transfer (see section 3.1). The mobile terminal sent location updates to the home agent (see sections 5.3.1, 5.3.2). Based on such connectivity data, the home agent forwarded the requested data from the correspondent host to the mobile terminal (see section 2).

28. While disclosing the possibility of a home agent receiving a change in connectivity data, Zhao did not specifically disclose reducing content forwarded to a mobile terminal, wherein the reduction further comprises conversion of the data to a lower resolution.

29. In a related art of network data communications, Kikinis disclosed a method and system for providing improved data transmission to computer connected to a network. In particular, Kikinis disclosed the invention in the context of portable (i.e., mobile) devices (see column 5, lines 36-49). Similar to the invention of Zhao, Kikinis disclosed that a mobile terminal could request web data over a network (see column 10, line 64 through column 11, line 11). A mobile terminal provided connectivity data to a proxy server, which in turn used the data to tailor content forwarded to the mobile terminal (see column 12, lines 11-26). The tailored data was in reduced form (see column 3, lines 8-18). Furthermore, the tailored data could be of lower resolution than the original (see column 8, lines 15-28; column 11, lines 22-28).

30. It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Zhao and Kikinis to incorporate the provision of forwarding a reduced-content version of data to the mobile terminal, wherein the reduction comprised a conversion to the data to a lower resolution. The invention of Zhao related to the use of mobile terminals, which included light-weight, portable computers and laptops (see Abstract, Figure 9). With such devices, Kikinis recognized a problem of battery life (see column 2, lines 16-60). One of ordinary skill in the art then would have been motivated to consider the teachings of Kikinis as they proved advantageous when used with such portable devices, giving the added benefit of increased battery life and saved power (see column 5, lines 56-65).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Montenegro (U.S. Pat. No. 6,571,289) disclosed a method for chained registration of mobile IP devices.

Leung (U.S. Pat. No. 6,760,444) disclosed a method and system for authenticating a mobile node.

Inoue et al. (U.S. Pat. No. 6,587,882) disclosed a mobile IP communication scheme using a temporal home network.

Yuan (U.S. Pat. App. Pub. 2001/0041571) disclosed a method and system for inter-network data transfer to mobile devices.

La Porta et al. (U.S. Pat. No. 6,763,007) disclosed a mobility scheme for packet communications in a network.

Borella et al. (U.S. Pat. No. 6,697,354) disclosed a method and system for distributed network address translation for mobile network devices.

Lee et al. (U.S. Pat. No. 6,535,493) disclosed a mobile internet communication protocol.

Turunen (U.S. Pat. No. 6,484,211) disclosed a method of enabling mobile terminal roaming between networks.

Okanoue (U.S. Pat. No. 6,243,758) disclosed routing data in a network of mobile hosts.

Kikinis (U.S. Pat. No. 5,727,159) disclosed a system for translating network information into a format usable by portable computers.

RFC 2002: "IP Mobility Support" (Perkins, IBM, Oct 1996) disclosed a protocol for transparent routing of datagrams to mobile nodes over the Internet.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph R Maniwang whose telephone number is (571) 272-3928. The examiner can normally be reached on Mon-Fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William A Cuchlinski can be reached on (571) 272-3925. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JM

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PRIMARY EXAMINER
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